



March 11, 2024

**VIA ELECTRONIC MAIL**

The Hon. Steven Guilbeault  
Minister of Environment and Climate Change  
House of Commons  
Ottawa, Ontario  
K1A0A6  
[Minister-ministre@ec.gc.ca](mailto:Minister-ministre@ec.gc.ca)

Tansi Minister Guilbeault

**Re: Request for Assessment of toxicity pursuant to section 76(1) of CEPA of naphthenic acids found in oil sands processed water**

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We write to you behalf of Mikisew Cree First Nation (“**Mikisew**”) to respectfully request an assessment of oil sands processed water (“**OSPW**”) naphthenic acids (“**NAs**”) under section 76 (1) of the Canadian Environmental Protection Act (“**CEPA**”) and a finding that OSPW NAs are toxic or capable of becoming toxic, within the meaning of section 64 of CEPA.<sup>1</sup>

We have reviewed the request from Ecojustice, Environmental Defence and Athabasca Chipewyan First Nation. We adopt their able submissions and include the following additional submissions on behalf of Mikisew Cree First Nation. We also include a list of select references that demonstrate why OSPW NAs are toxic or capable of becoming toxic.

Through these submissions, Mikisew underscores that they are a “vulnerable population” and that OSPW NAs, in combination with other chemicals, are especially toxic to our health.

**1. Overview**

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<sup>1</sup> *Canadian Environmental Protection Act*, 1999, SC 1999, c 33, [s 76\(1\)](#), [s 64](#).



Presently, the Canadian regulatory frameworks discriminate based on race against us as First Nation people. This is because our provincial regulator, the Alberta Energy Regulator, does not monitor for human health risks. Under federal legislation, for example, the *Fisheries Act*<sup>2</sup>, fish have more rights than humans. When we seek protection or research of our human health, we are subject to jurisdictional tug-a-wars between provincial and federal governments.

With this in mind, we welcome Canada's June 2023 amendments to CEPA and the legislation's new focus on human health. For this reason, we ask that the Minister consider the available research outlining the human health risk of OSPW NAs. We also ask for this assessment because, at present, the Canadian Drinking Water Quality Guidelines have no standard for NAs.<sup>3</sup> The absence of regulatory control of OSPW NAs in our *tap* water underscores the importance of a regulatory control in our so-called *source* water through CEPA.

The Government of Canada cannot wait for more research to make this assessment. Our human health and the precautionary principle mandate a section 76(1) assessment classifying OSPW NAs as toxic or capable of becoming toxic.

## 2. Mikisew Cree First Nation

Mikisew Cree First Nation is the largest First Nation situated near Fort Chipewyan Alberta and the oil sands region. We live downstream from the oil sands, the largest industrial waste site on the planet.

For "As long as the sun shines, grass grows, and the rivers flow" this is what we were promised in Treaty 8. Treaty 8 was not just a piece of paper. It was the foundation for our Nation-to-Nation relationship. In this relationship, protection of our health and co-existence of our own laws was promised. This has not happened.

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<sup>2</sup> *Fisheries Act*, [RSC 1985, c F-14](#).

<sup>3</sup> Health Canada, Canadian Drinking Water Quality Technical Documents, available [here](#).



Our way of life and who we are as Mikisew people depend on water for all aspects of our traditional, cultural inherent rights. It connects us to our ancestors. It is what connects us as human beings. Water (nipîy) is Boss.

Our elders remind us that before we are born into this world, we have lived for our first nine months in water. It sustains and gives us life. We are dependent on water. Without water we will die. Water holds memory that is transferred to us. This is our relationality.

It is also important to remember for Mikisew people. Water is not just the heavily treated water out of the tap. It is the water on the land which we used to drink, and which is necessary for our Treaty rights to hunt, harvest, trap and fish.

We did not Treaty water. We maintain that we have unextinguished title to the waterbeds in our territory.

Today, because of decades of unmitigated industrial development in our traditional territory, our people are suffering. Even a 2009 Alberta government study found that the incidences of cancer in our community were 30 per cent higher. We know it is worse. But we can't study this. And we don't know if OSPWB Naphthenic Acids together or apart are contributing to this sickness.

Despite requests for almost two decades, we don't have the health research to confirm what exactly is making us sick and from what receptors (fish, tap water, meats, medicines, etc). Chief Billy-Joe Tuccaro recently appeared at the Parliamentary ENVI committee, on the Freshwater Study, and explained the consequences to the Mikisew people as follows:

While we suffer the disproportionate impacts of industrial development, other non-first nation governments benefit from the development. Our traditional territory continues to be altered and extracted from at a fast pace, which has impacted and continues to impact our watersheds. I have witnessed our watersheds, which I once drank from or swam in as a child, become so polluted that we are now fearful of drinking and/or swimming.

I have witnessed large sores on the moose and fish we hunt and harvest. I've witnessed friends and family fighting or dying from cancers that we believe were caused by naphthenic acids or carcinogens in our watersheds.



In the last nine months, we lost two of our previous chiefs, who succumbed to cancers: the late chiefs Peter Powder and Steve Courtoreille. Our nation is grieving. We're not only grieving friends and family, but we're grieving the impacts on our lands and water.

The health impacts go beyond cancer and other diseases. Our people don't use the land anymore because they just don't trust the water. This is a direct cultural impact. We are seeing increasing rates of opioids, addiction, and mental health issues because of the water crisis we face...

[...]

With regard to that, since the Kearl incident in May 2022, a lot of my people have turned away from the traditional way of life of being on the land with regard to hunting and trapping, because they are afraid to eat the stuff they are harvesting on the land. What that is doing is.... A lot of the people who are usually out on the land are staying in the community a lot more, and that is creating social problems for my people. A lot of them are turning to opiates. With regard to what's happening in my community, we also have an opiate crisis and a major drug issue.

Before the Kearl incident and what's been going on with regard to my people on the land, like Lloyd mentioned—I mentioned this to him when I was in Ottawa—a lot of my people, when they went on the land, took the snow right from wherever they were and made snow water for tea and coffee. A lot of my people don't do that anymore. A lot of my people don't use the beach area for swimming anymore because they're not sure what's going on with the water after the Kearl incident. It's still continuing to seep to this day.

We have seen a huge escalation in cancer in the last two years. I know that for a fact. As a chief, I know between 40 and 50 people who have been diagnosed or whose cancers were in remission and have now resurfaced. We also have the rarest form of cancer: bile duct cancer. When my people



are diagnosed with that, they perish within a couple of months. I've seen it first-hand.<sup>4</sup>

### 3. CEPA Amendments Demand This Assessment

In Addition to the Ecojustice submission, Mikisew wishes to remind the Minister of the June 2023 amendments<sup>5</sup> to the *Canadian Environmental Protection Act*, which included:

1. The Government of Canada's ("GoC") commitment to "implementing the United Nations Declaration on the Rights of Indigenous Peoples, including free prior and informed consent".<sup>6</sup>
2. The GoC's recognition of the "role of science and Indigenous knowledge" in the process of making decisions related to the protection of the environment and human health".<sup>7</sup>
3. GoC statutory duties to "protect the right of every individual in Canada to a healthy environment" and to uphold the principles of "environmental justice", "non-regression" and intergenerational equity<sup>8</sup>;
4. The definitions of "healthy environment" and "precautionary principle", the latter meaning that "the lack of full scientific certainty shall not be used as a reason for postponing" measures.
5. The definition of vulnerable population, which means "a group of individuals within the Canadian population who, due to greater susceptibility or greater exposure, may be at an increased risk of experiencing adverse health effects from exposure to substances."

Most importantly, the process for assessing a substance as toxic or capable of being toxic now requires two considerations that are of utmost important to Mikisew. Section 76(2) requires the Minister to consider available information on:

- i. any vulnerable population.

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<sup>4</sup> February 27, 2024, ENVI Committee, Evidence, available at:

<https://www.ourcommons.ca/DocumentViewer/en/44-1/ENVI/meeting-99/evidence>.

<sup>5</sup> Table of amendments available [here](#).

<sup>6</sup> *Canadian Environmental Protection Act*, 1999, [SC 1999, c 33](#), Preamble.

<sup>7</sup> *Canadian Environmental Protection Act*, 1999, [SC 1999, c 33](#), Preamble.

<sup>8</sup> *Canadian Environmental Protection Act*, 1999, SC 1999, c 33, [s 2\(1\)\(a.2\) and \(a.3\)](#).



- ii. the cumulative effects on human health from exposure to the substance **in combination** with exposure to other substances.<sup>9</sup>

#### 4. Section 76(2) Submissions

We submit that the information on both criteria support an assessment that OSPW NAs are toxic or capable of becoming toxic.

##### i. Mikisew presents a “vulnerable population”

The available health data confirms that Mikisew is a “vulnerable population” as defined in the legislation: “a group of individuals within the Canadian population who, due to greater susceptibility or greater exposure, may be at an increased risk of experiencing adverse health effects from exposure to substances.”<sup>10</sup>

At least in the early 2000s, Mikisew began raising concerns about elevated rates of rare cancer in Fort Chipewyan. Reports indicate, however, that concerns over cancer began in the 1980s in Fort McKay.<sup>11</sup>

In 2009, the Alberta Cancer Board released a study finding, among other things, that cancer rates were 30 % higher for residents of Fort Chipewyan than what would be expected in the general Alberta population.<sup>12</sup> However, this report minimized these findings by applying analysis that suggested the sample size was too small. For example, the report stated: “These increases were based on a small number of cases and could be due to chance or increased detection.”

Alberta released a follow-up study in March, 2014. This study said there were purportedly only three more cases of a certain cancer than would be expected. This is not a large number in most

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<sup>9</sup> *Canadian Environmental Protection Act*, 1999, SC 1999, c 33, [s 76\(1\)](#) and 76(2).

<sup>10</sup> *Canadian Environmental Protection Act*, 1999, SC 1999, c 33, [s 3\(1\)](#).

<sup>11</sup> See for example P. Breyhour, Why is cancer sweeping tiny Fort Chipewyan, *Globe and Mail*, May 22, 2006: <https://www.theglobeandmail.com/news/national/why-is-cancer-sweeping-tiny-fort-chipewyan/article709388/>

<sup>12</sup> Alberta Cancer Board, *Cancer Incidence in Fort Chipewyan, Alberta, 1995-2006*, Division of Population Health and Information Surveillance, February 2009.



populations, but it is a measurable percentage of Fort Chipewyan residents. The 2014 report stated, “[o]ur follow-up report found that the total number of cancers and most types of cancers in the Fort Chipewyan area were the same as rates in the rest of Alberta.”<sup>13</sup>

By contrast, also in 2014, along with Athabasca Chipewyan First Nation, we released our own study led by Stephan McLachlan. This also revealed high levels of cancer.<sup>14</sup> And even ten years ago, the study outlined the need for more health research because Mikisew is a vulnerable population, stating:

In Fort Chipewyan, community members are gravely concerned about increases in the prevalence of cancer and attribute these changes in part to increases in environmental contaminants associated with upstream industrial development and more specifically to the Oil Sands (Chapter 9). Indeed, residents have long called for a baseline study that would help document these changes in community health, a call that still goes unheeded by both provincial and federal governments (Weber 2013).<sup>15</sup>

The McLachlan study conclusions, noted, among other things, “Cancer occurrence is positively associated with employment in the Oil Sands as well as the consumption frequency of traditional foods and more specifically locally caught fish.”<sup>16</sup>

In 2023, following the seepage and spill at Imperial Oil’s Kearl Lake site, Mikisew did our own health impact assessment which confirmed a large majority of our members’ mental health was impacted.

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<sup>13</sup> March 2014, [AHS overview](#).

<sup>14</sup> S. McLachlan (2014) ([\(PDF\) Environmental and Human Health Implications of Athabasca Oil Sands Development for the Mikisew Cree First Nation and Athabasca Chipewyan First Nation in Northern \(researchgate.net\)](#)).

<sup>15</sup> S. McLachlan (2014) ([\(PDF\) Environmental and Human Health Implications of Athabasca Oil Sands Development for the Mikisew Cree First Nation and Athabasca Chipewyan First Nation in Northern \(researchgate.net\)](#)), p. 17 and 216.

<sup>16</sup> S. McLachlan (2014) ([\(PDF\) Environmental and Human Health Implications of Athabasca Oil Sands Development for the Mikisew Cree First Nation and Athabasca Chipewyan First Nation in Northern \(researchgate.net\)](#)), p. 212.



Environmental dispossession was high. Numbers were notably higher for those members living in Fort Chipewyan.

Finally, the Alberta government's health profile also contains indicators of vulnerability that ought to be considered in this assessment.<sup>17</sup>

**ii. Cumulative effects to human health of exposure in combination with other chemicals**

Mikisew people are “vulnerable”, by virtue of OSPW exposure. This vulnerability is not just to OSPW NAs but also other chemicals that act through similar modes of action to elicit similar toxic responses. While industry funded<sup>18</sup> research indicates that OSPW NAs are not bio-accumulative<sup>19</sup> we need to know more, and we still do not understand that cumulative effects of human exposure to OSPW NAs and the other chemicals in combination. This requires application of the precautionary principle.

The human health effects of OSPW NAs were studied in 2012. These findings still remain current today.<sup>20</sup>

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<sup>17</sup> Government of Alberta, Community Profile: Wood Buffalo excluding Fort McMurray health data and summary 2022, 5<sup>th</sup> edition, available: <https://open.alberta.ca/dataset/62df29fc-7d98-4893-b6ce-1d03def3740e/resource/5d0bbb92-beb7-4f2c-baeb-6a65e81573eb/download/hlth-phc-wood-buffalo-2022.pdf>.

<sup>18</sup> COSIA (Canada's Oil Sands Innovation Alliance) is an industry funded research arm, now referred to as “Pathways Alliance”, available [here](#).

<sup>19</sup> See for example: Scott, A.C., Zubot, W., Davis, C.W. and Brogly, J., 2020. Bioaccumulation potential of naphthenic acids and other ionizable dissolved organics in oil sands process water (OSPW)—a review. *Science of the Total Environment*, 712, p.134558.

<sup>20</sup> Kindzierski, W., J. Jin and M. Gamal El-Din, 2012. Review of Health Effects of Naphthenic Acids: Data Gaps and Implications for Understanding Human Health Risk. Oil Sands Research and Information Network, University of Alberta, School of Energy and the Environment, Edmonton, Alberta. OSRIN Report No. TR-20. 43 pp. <https://era.library.ualberta.ca/items/adf85105-0c31-42ed-984d-c4db8e15071a/view/eeac80c8-576c-4efb-ad6a-3015651a8892/TR-20.pdf>





Mikisew believes assessing OSPW NAs as toxic is a necessary first step. However, this submission is not meant to say that OSPW is the primary toxicant driving chronic toxicity in OSPW. Although OSPW NAs are the primary contributor to acute toxicity to aquatic biota, they are one of several toxic substances. The evidence does not identify OSPW NAs as the primary toxicant when you consider both human and ecological health effects and acute and chronic effects.

In other words, OSPW NAs are not the primary toxicant, but they must be considered in combination as section 76(2) requires.

We provide this caution and commend the need for cumulative effects/combination analysis, because industry funded researchers and operators have identified OSPW NAs as the primary toxicant for years apparently in an attempt to limit their focus to passive treatment on removing this chemical class. This approach generally removes acute toxicity but chronic/long term toxicity is from exposure to other chemicals (generally inorganics like metals and salts which require active treatment such as municipal drinking water treatment facilities) and industry does not always consider these other chemicals in treatment technologies as the cost of treatment increases with active removal processes.

The evidence indicates that other chemicals in OSPW that act through narcosis and endocrine disrupting mechanism/modes of action causing/contributing to the same critical health effect as OSPW NAs. There are chemicals, for example in the CCME SW PAL guidelines and Health Canada Drinking Water Quality Guidelines that constitute additive mixtures contributing to cumulative effects/toxicity in aquatic biota and human receptors. These need to be considered in this assessment.

Finally, the 2014 McLachlan study also acknowledged the cumulative/ combination effect:

Contaminants of broad concern include heavy metals (for eg. mercury, arsenic, cadmium) as well as toxins such as polycyclic aromatic hydrocarbons (“**PAHs**”) and naphthenic acids. Although some of these contaminants already naturally occur in the region, there is much concern that development associated with the Oil Sands increases their



concentrations to unacceptable levels, placing communities and wildlife at risk in the combined Peace-Athabasca-Slave River Basins.<sup>21</sup>

## Conclusion

In conclusion, Mikisew submits that section 76(2) requires the Minister to consider these cumulative effects and, importantly, those effects of exposure in combination with OSPW NAs. It also requires the Minister to consider the human health effects of OSPW NAs. Considering these items, we look forward to a response within the 90 days in CEPA.

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Mikisew Cree First Nation

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Melanie Dene, A/Director GIR  
Mikisew Cree First Nation

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<sup>21</sup> S. McLachlan (2014) ([\(PDF\) Environmental and Human Health Implications of Athabasca Oil Sands Development for the Mikisew Cree First Nation and Athabasca Chipewyan First Nation in Northern \(researchgate.net\)](#)), p. 17.



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